

REMARKS

Claims 1-21 are pending. Claims 5 and 10-20 stand withdrawn from consideration as a non-elected invention under a restriction requirement, but are subject to rejoinder upon notification of an allowable linking claim. By the present amendment, claims 2 and 7 are canceled, and claims 1, 3, 8, 9 and 21 are amended.

Priority

Enclosed are Declarations executed by inventors Christopher R. Tudan, Ahmed Merzouk, Arab Lakhdar, Geeta Saxena, Connie J. Eaves, and Joanne Cashman, and by the legal representatives of inventor Ian Clark-Lewis, who is deceased. Applicant respectfully requests acknowledgement of the foreign priority claim.

Rejections Under 35 U.S.C. § 112

The specification is objected to and claims 1-4, 6-8, and 21 are rejected under 35 U.S.C. § 112, first paragraph, on the basis, according to the applicant's understanding, that the specification does not provide an adequate written description of the invention. More specifically, the Office Action asserts that the specification does not describe the full scope of possible SDF-1[P2G] analogs. The Office Action however acknowledges that the specification describes some modifications of the SDF-1[P2G] sequence and inclusion of a proline-amino acid chimera or Bicyclic Turned Dipeptide at some positions.

Claims 1, 3, and 21, the pending independent claims, have been amended to recite amino acid analogs having at least 50% identity to SDF-1[P2G] (SEQ ID NO: 1) or a fragment thereof, further to the telephone conference between the Examiner and Brian G. Kingwell, Registration No. 39,482, on February 13, 2004. Support for this amendment may be found, for example, at page 15, line 24, to page 16, line 3, which describe substitution of the SDF-1[P2G] sequence with the natural amino acid, proline, as well as with non-natural amino acid mimics such as the proline-amino acid chimera and the Bicyclic Turned Dipeptide; and, for example, at page 20, line 10, to page 21, line 2 which discloses percentage identities of the analogs and contemplates conservative substitutions of amino acids in the SDF-1 sequence. Thus, the specification describes the sequence and structure of multiple SDF-1[P2G] amino acid analogs and fully complies with the written description requirement. Accordingly, the applicant respectfully submits that claims reciting CXCR4 antagonists including SDF-1[P2G] or a fragment or amino acid analog having at least 50% identity to SDF-1[P2G] or a fragment thereof satisfy the written description requirement.

In this regard, the applicant has amended claim 9 to reintroduce SDF-1[P2G] analogs including a proline-amino acid chimera or Bicyclic Turned Dipeptide and respectfully requests the rejoinder of the dependent claims directed to CXCR4 antagonists including SDF-1[P2G] fragments or amino acid analogs having at least 50% identity to SDF-1[P2G] or fragments thereof, which are withdrawn under the restriction requirement. These claims recite species recited in the independent claims and include the limitations thereof and as such rejoinder of these claims is proper (M.P.E.P. § 806.04(d)).

Claims 1-4 and 6-9 also remain rejected under 35 U.S.C. § 112, first paragraph, on the basis, according to the applicant's understanding, that the specification is not enabling. More specifically, the Office Action maintains that demonstration of a method of promoting the rate of BFU-E or CFU-GM multiplication does not enable a method of promoting proliferation of all hematopoietic cells. While Applicant reiterates that claims reciting hematopoietic cells are fully enabled according to the methods of the invention, to expedite prosecution of this case, independent claims 1 and 3 have been amended to recite BFU-E or CFU-GM cells.

Claims 1-4, 6-9, and 21 stand rejected under 35 U.S.C. § 112, second paragraph, on the basis, according to the applicant's understanding, that the term "analog" is unclear. As independent claims 1, 3, and 21 have been amended to recite "amino acid analog having at least 50% identity to SDF-1[P2G] (SEQ ID NO: 1) or a fragment thereof," Applicant respectfully submits that this rejection no longer applies.

Claims 4, 6, 8, and 9 are dependent claims and are subject to the limitations of claim 1. Therefore, the amendments to claim 1 also relate to claims 4, 6, 8, and 9.

Applicant submits that all rejections under 35 U.S.C. § 112 have been addressed and respectfully requests that the Examiner not renew claim rejections under 35 U.S.C. § 112.

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16 and 1.17 which may be required by this paper, or to credit any overpayment, to Deposit Account No. 50-0815.

Respectfully submitted,

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